Listing of the Claims:

A clean version of the entire set of pending claims is submitted herewith per 37 CFR 1.121(c)(3). This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of the Claims

1. (Canceled)

2. (Previously Presented) The method of Claim 5, wherein the image parameter is an image acquisition parameter.

3. (Canceled)

4. (Original) The method of Claim 2, wherein said producing the first image data includes capturing a first image of the object, and wherein said producing the second image data includes capturing a second image of the object.

5. (Previously Presented) A method for providing feedback during an inspection of an object, the method comprising:

receiving first image data representing the object, the first image data being produced using an image parameter;

determining an incorrect classification of at least one feature of the object based on the first image data produced as a result of an original setting of the image parameter,

calculating image parameter modification information to correct the incorrect classification and

modifying the original setting of the image parameter to a modified setting based on the image parameter modification information; and

receiving second image data representing the object, the second image data being produced using the modified image parameter.

6. (Previously Presented) The method of Claim 2, wherein said producing the first image data includes producing first raw image data representing the first image using the original setting of the image acquisition parameter, and wherein said producing the second image data includes producing second raw image data representing the second image using the modified setting of the image acquisition parameter.

7. (Original) The method of Claim 2, wherein the image acquisition parameter is at least one of an illumination parameter, resolution parameter, sensor parameter or image view parameter.

8. (Previously Presented) The method of Claim 5, wherein the image parameter is an image processing parameter.

9. (Canceled)

10. (Previously Presented) The method of Claim 8, wherein said producing the first image data includes processing raw image data representing an image of the at least one feature of the object using the original setting of the image processing parameter to produce the first image data, and wherein said producing the second image data includes processing the raw image data using the modified setting of the image processing parameter to produce the second image data.

11. (Original) The method of Claim 8, wherein the image processing parameter is at least one of a processing type parameter or a processing complexity parameter.

12. (Canceled)

13. (Previously Presented) The method of Claim 15, wherein said determining includes processing the image data to measure the image acquisition parameter modification information.

14. (Canceled)

15. (Previously Presented) A method for providing feedback during an inspection of an object, the method comprising:

setting at least one image acquisition parameter to capture a first image of the object;

determining an incorrect classification of at least one feature of the object based on first image data representing the first image captured using said setting;

determining image acquisition parameter modification information to correct the incorrect classification and produce an adequate classification; and

modifying the image acquisition parameter based on the image acquisition parameter modification information to capture a second image of the object.

16. (Previously Presented) The method of Claim 15, wherein the image acquisition parameter is at least one of an illumination parameter, resolution parameter, sensor parameter or image view parameter.

17-18. (Canceled)

19. (Previously Presented) The inspection system of Claim 21, further comprising a sensor disposed in relation to the object to receive illumination projected from the object, to capture a first image of the object, and to produce first raw image data representing the first image, wherein said processor includes an

image analysis processor operable to process the first raw image data to produce first image data.

20. (Canceled)

21. (Previously Presented) An inspection system for providing feedback during an inspection of an object, comprising:

a processor connected to receive first image data representing the object, the first image data being produced using an image parameter, wherein said processor includes a classification processor to receive the first image data, to determine an incorrect classification of at least one feature of the object based on the first image data as a result of an original setting of the image parameter, to calculate image parameter modification information to correct the incorrect classification, and to modify the original setting of the image parameter to a modified setting based on the image parameter modification information for use in producing second image data representing the object.

22. (Previously Presented) The inspection system of Claim 19, wherein said sensor is further configured to capture a second image of the object and produce second raw image data representing the second image using the modified setting of the image parameter.

23. (Previously Presented) The inspection system of Claim 19, wherein said image analysis processor is further operable to process the first raw image data using the modified setting of the image parameter to produce second processed image data.

24. (Original) The inspection system of Claim 23, wherein the image parameter is at least one of a processing type parameter or a processing complexity parameter.

25. (Previously Presented) The inspection system of Claim 21, wherein the image parameter is a sensor parameter associated with said sensor.

26. (Original) The inspection system of Claim 25, wherein the sensor parameter is at least one of an exposure duration of said sensor or a resolution associated with the first raw image

27. (Previously Presented) The inspection system of Claim 21, wherein the image parameter is a view parameter controlling the positional relationship between said sensor and the object.

28. (Previously Presented) The inspection system of Claim 21, further comprising:

an illumination source disposed in relation to the object to illuminate the object, the image parameter being an illumination parameter controlling said illumination source.

29. (Original) The inspection system of Claim 28, wherein said illumination source illuminates the object with a beam of X-rays.

30. (Original) The inspection system of Claim 28, wherein said illumination source illuminates the object with light.

31. (Previously Presented) The method of claim 7, wherein the image acquisition parameter is an illumination parameter, and wherein the illumination parameter is an intensity of an illumination source employed for illuminating the object.

32. (Previously Presented) The method of claim 7, wherein the image acquisition parameter is an X-ray to which the object is exposed.

33. (Previously Presented) The method of claim 7, wherein the image acquisition parameter is a sensor parameter, and wherein the sensor parameter is one of a resolution of the sensor and a dynamic range of the sensor.

34. (Previously Presented) The method of claim 16, wherein the image acquisition parameter is an illumination parameter, and wherein the illumination parameter is an intensity of an illumination source employed for illuminating the object.

35. (Previously Presented) The method of claim 16, wherein the image acquisition parameter is an X-ray to which the object is exposed.

36. (Previously Presented) The method of claim 16, wherein the image acquisition parameter is a sensor parameter, and wherein the sensor parameter is one of a resolution of the sensor and a dynamic range of the sensor.

37. (Previously Presented) The inspection system of claim 25, wherein the sensor parameter is one of a resolution of the sensor and a dynamic range of the sensor.

38. (Previously Presented) The inspection system of claim 21, wherein the image parameter is an intensity of an illumination source employed for illuminating the object.